CHAMPION
GLOBAL POWER EQUIPMENT™

73531i
Rev 73531i-20100609

1st Year 1 + 2nd Year 1 = 2 YEAR LIMITED WARRANTY
Parts & Labor — Parts Support

www.championpowerequipment.com
10006 Santa Fe Springs Road
Santa Fe Springs, CA 90670 USA

Owner's Manual and Operating Instructions

SAVE THESE INSTRUCTIONS

Important Safety Instructions are included in this manual

2000 Starting Watts / 1600 Rated Watts

PORTABLE INVERTER GENERATOR

Table of Contents

Introduction 1
Portable Power Generator 1
Accessories 1
This Booklet.....1
Manual Conventions 2
Safety Rules 3
Controls and Features 5
Generator..... 5
Power Panel..... 6
Parts Included 7
Assembly..... 8
Remove the Generator from the Shipping Carton 8
Add Engine Oil 8
Add Fuel 9
Grounding 9
Operation.....10
Generator Location 10
Starting the Engine 10
Economy Control Switch 11
Connecting Electrical Loads..... 11
Stopping the Engine.....12
Do Not Overload Generator 12
Capacity 12
Power Management 12
Overload Operation.....12
Parallel Operation 12
Wattage Reference Chart.....13
Maintenance 14
Engine Maintenance 14
Oil.....14
Spark Plugs 14
Air Filter.....15
Cleaning 15
Spark Arrester Cleaning.....15
Adjustments.....16
Maintenance Schedule 16
Generator Maintenance.....16
Storage 17
Specifications 18
Engine Specifications 18
Generator Specifications..... 18
Fuel..... 18
Oil 18
Spark Plugs 18
Valve Clearance 18
Parts Diagram..... 19
Parts List 20
Engine Parts Diagram 22
Engine Parts List 23
Wiring Diagram 25
Troubleshooting 26
Warranty 27
Warranty Qualifications..... 27
Repair/Replacement Warranty 27
Do not return the unit to the place of purchase..... 27
Warranty Exclusions 27
Normal Wear 27
Installation, Use and Maintenance..... 27
Other Exclusions..... 27
Limits of Implied Warranty and Consequential Damage 27
Contact Information..... 27
Address..... 27
Customer Service 27
Technical Service 27

Introduction

Congratulations on your purchase of a Champion Power Equipment inverter generator. CPE designs and builds generators to strict specifications. With proper use and maintenance, this generator will bring years of satisfying service.

This Owner's Manual contains important safety instructions and information. SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

Portable Power Generator

This unit is a gasoline engine driven, alternating current (AC) generator. It is designed to supply electrical power for lighting, appliances, tools and similar equipment.

Accessories

Champion Power Equipment manufactures and sells accessories designed to help you get the most from your purchase. To find out more about our covers, power cables and storm kits, please visit our web site at

www.championpowerequipment.com

This Booklet

Every effort has been made to ensure the accuracy and completeness of the information in this manual. We reserve the right to change, alter and/or improve the product and this document at any time without prior notice.

Record the model and serial numbers as well as date and place of purchase for future reference. Have this information available when ordering parts and when making technical or warranty inquiries.

Champion Power Equipment Support
1-877-338-0999
Model Number
73531i
Serial Number
Date of Purchase
Purchase Location

Manual Conventions

This manual uses the following symbols to help differentiate between different kinds of information. The safety symbol is used with a key word to alert you to potential hazards in operating and owning power equipment.

Follow all safety messages to avoid or reduce the risk of serious injury or death.

DANGER

DANGER indicates an imminently hazardous situation which, if not avoided, *will* result in death or serious injury.

WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, *could* result in death or serious injury.

CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, *may* result in minor or moderate injury.

CAUTION

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, *may* result in property damage.

NOTE

If you have questions regarding your generator, we can help. Please call our help line at 1-877-338-0999.

Safety Rules

⚠ WARNING

Read this manual thoroughly before operating your generator. Failure to follow instructions could result in serious injury or death.

⚠ WARNING

The engine exhaust from this product contains chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm.

⚠ DANGER

Generator exhaust contains carbon monoxide, a colorless, odorless, poison gas. Breathing carbon monoxide will cause nausea, dizziness, fainting or death. If you start to feel dizzy or weak, get to fresh air immediately.

Operate generator outdoors only in a well ventilated area
DO NOT operate the generator inside any building, including garages, basements, crawlspaces and sheds, enclosure or compartment, including the generator compartment of a recreational vehicle.
DO NOT allow exhaust fumes to enter a confined area through windows, doors, vents or other openings.
DANGER CARBON MONOXIDE, using a generator indoors **CAN KILL YOU IN MINUTES.**

⚠ DANGER

Rotating parts can entangle hands, feet, hair, clothing and/or accessories.

Traumatic amputation or severe laceration can result.

Keep hands and feet away from rotating parts.
Tie up long hair and remove jewelry.
Operate equipment with guards in place.
DO NOT wear loose-fitting clothing, dangling drawstrings or items that could become caught.

⚠ DANGER

Generator produces powerful voltage.

DO NOT touch bare wires or receptacles.
DO NOT use electrical cords that are worn, damaged or frayed.
DO NOT operate generator in wet weather.
DO NOT allow children or unqualified persons to operate or service the generator
Use a ground fault circuit interrupter (GFCI) in damp areas and areas containing conductive material such as metal decking.
Use approved transfer equipment to isolate generator from your electric utility and Notify your utility company before connecting your generator to your power system.

⚠ WARNING

Sparks can result in fire or electrical shock.

When servicing the generator:
Disconnect the spark plug wire and place it where it cannot contact the plug.
DO NOT check for spark with the plug removed.
Use only approved spark plug testers.

⚠ WARNING

Running engines produce heat.
Severe burns can occur on contact.
Combustible material can catch fire on contact.

DO NOT touch hot surfaces.
Avoid contact with hot exhaust gases.
Allow equipment to cool before touching.
Maintain at least three feet of clearance on all sides to ensure adequate cooling.
Maintain at least five feet of clearance from combustible materials.

⚠ DANGER

Fuel and fuel vapors are highly flammable and extremely explosive.

Fire or explosion can cause severe burns or death.

Unintentional startup can result in entanglement, traumatic amputation or laceration.

When adding or removing fuel

Turn the generator off and let it cool for at least two minutes before removing the fuel cap.
Loosen the cap slowly to relieve pressure in the tank.
Only fill or drain fuel outdoors in a well-ventilated area.
DO NOT overfill the fuel tank.
Always keep fuel away from sparks, open flames, pilot lights, heat and other sources of ignition.
DO NOT light or smoke cigarettes.

When starting the generator

DO NOT attempt to start a damaged generator.
Make certain that the gas cap, air filter, spark plug, fuel lines and exhaust system are properly in place.
Allow spilled fuel to evaporate fully before attempting to start the engine.
Make certain that the generator is resting firmly on level ground.

When operating the generator:

DO NOT move or tip the generator during operation.
DO NOT tip the generator or allow fuel or oil to spill.

When transporting or servicing the generator:

Make certain that the fuel shutoff valve is in the off position and the fuel tank is empty.
Disconnect the spark plug wire.

When storing the generator:

Store away from sparks, open flames, pilot lights, heat and other sources of ignition.

⚠ WARNING

Rapid retraction of the starter cord will pull hand and arm towards the engine faster than you can let go.

Unintentional startup can result in entanglement, traumatic amputation or laceration.

Broken bones, fractures, bruises or sprains could result.

When starting engine, pull the starter cord slowly until resistance is felt and then pull rapidly to avoid kickback.
DO NOT start or stop the engine with electrical devices plugged in.

⚠ CAUTION

Exceeding the generator's running capacity can damage the generator and/or electrical devices connected to it

DO NOT overload the generator.
Start the generator and allow the engine to stabilize before connecting electrical loads.
Connect electrical equipment in the off position, and then turn them on for operation.
Turn electrical equipment off and disconnect before stopping the generator.
DO NOT tamper with the governed speed.
DO NOT modify the generator in any way.

⚠ CAUTION

Improper treatment or use of the generator can damage it, shorten its life and void your warranty.

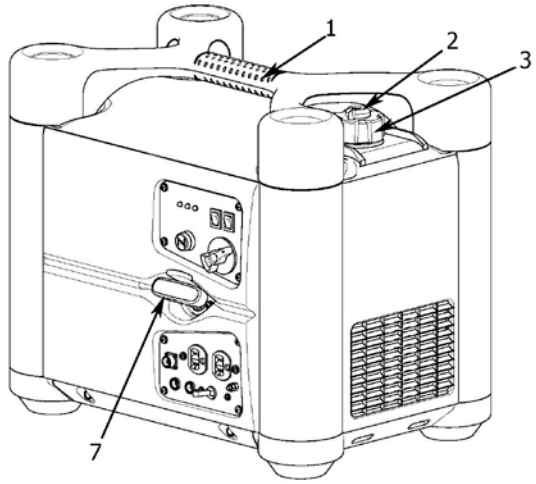
Use the generator only for intended uses.
Operate only on level surfaces.
DO NOT expose generator to excessive moisture, dust, or dirt.
DO NOT allow any material to block the cooling slots.
If connected devices overheat, turn them off and disconnect them from the generator.
DO NOT use the generator if:

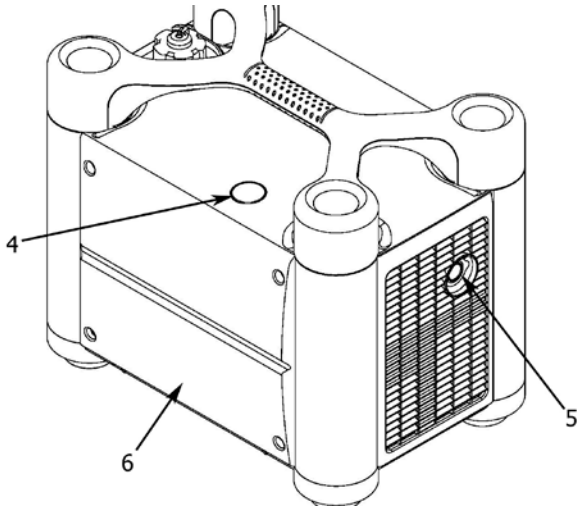
- Electrical output is lost
- Equipment sparks, smokes or emits flames
- Equipment vibrates excessively

Controls and Features

Read this owner's manual before operating your generator. Familiarize yourself with the location and function of the controls and features. Save this manual for future reference.

Generator





(1) Carrying Handle

(2) Fuel Lever Vent – Turn this valve to the "On" position to supply air to the tank.

(3) Fuel Cap – Remove to add fuel

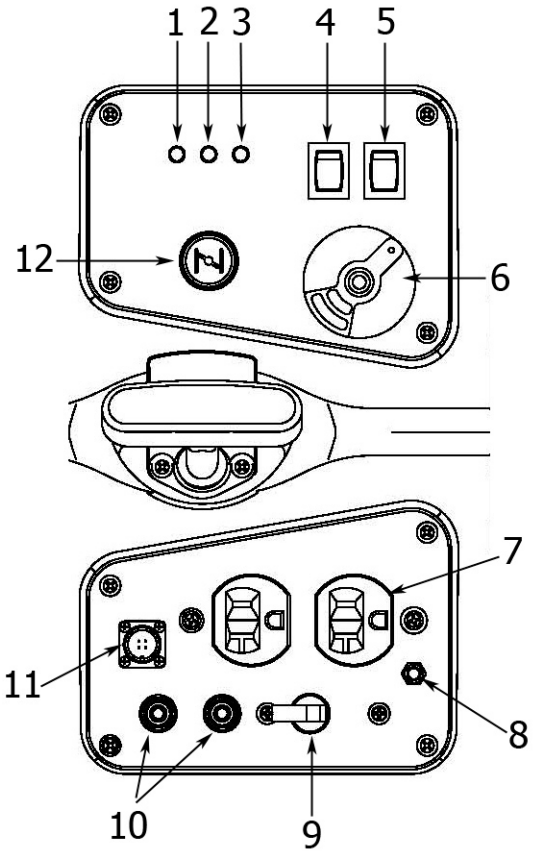
(4) Spark plug access cap

(5) Muffler

(6) Maintenance Cover – Oil filler, Air filter, Carburetor access

(7) Recoil Starter – Used to start the engine

Power Panel



(1) Oil Warning Light - Check oil level when this light turns on. Engine will not run when indicator is lit.

(2) Overload Indicator Light - This light turns ON when the generator is overloaded and will cut power to the receptacles.

(3) Output Light - Remains ON during normal operating conditions. Shuts OFF when generator is overloaded.

(4) Economy Control Switch

(5) Engine Switch

(6) Fuel Valve Knob

(7) 120 V Duplex - Use this duplex to operate 120 Volt AC, single phase, 60 Hz loads requiring up to 13.3 A 0r 1600 Watts of power.

(8) Ground Terminal - Consult an electrician for local grounding regulations.

(9) Circuit Breaker

(10) Parallel Operation Outlets *

(11) Parallel Operation Control *

(12) Choke Knob

***** These outlets are used for connecting two Champion model 73531i generators for parallel operation (see page 12). A Champion model 73550i cable kit (optional equipment) is required for parallel operation.

Parts Included

Your 73531i Gasoline Powered Inverter Generator ships with the following parts:

Oil Funnel	1 piece
Spark Plug Socket	1 piece

Assembly

This unit ships from our factory without oil. It must be properly serviced with fuel and oil before operation.

If you have any questions regarding the assembly of your generator, call our help line at 1-877-338-0999. Please have your serial number and model number available.

Remove the Generator from the Shipping Carton

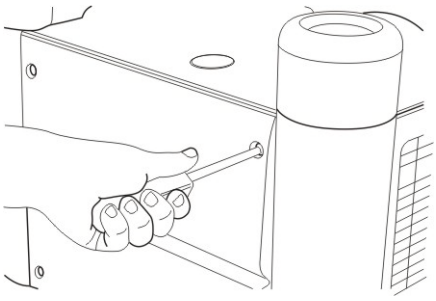
1. Set the shipping carton on a solid, flat surface.
2. Remove everything from the carton except the generator.
3. Using the handle of the unit, carefully remove the generator from the box.

Add Engine Oil

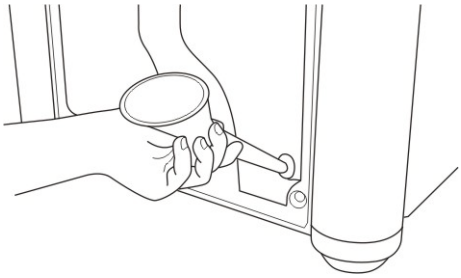
⚠ CAUTION

DO NOT attempt to crank or start the engine before it has been properly filled with the recommended type and amount of oil. Damage to the generator as a result of failure to follow these instructions will void your warranty.

1. Place the generator on a flat, level surface.
2. Loosen the cover screw and remove the maintenance cover.



3. Remove oil fill cap/dipstick to add oil.



4. Add 0.42 qt (0.4 L) of oil and replace oil fill cap/dipstick. See “Specifications” page in the manual for oil recommendations based on operating conditions.
5. Check engine oil level daily and add as needed.

CAUTION

The engine is equipped with a low-oil-shutoff and will stop when the oil level in the crankcase falls below the threshold level.

NOTE

Check oil often. Refer to the Maintenance section for recommended service intervals.

Add Fuel

1. Use clean, fresh, regular unleaded fuel with a minimum octane rating of 85.
2. DO NOT mix oil with fuel.
3. Clean the area around the fuel cap.
4. Remove the fuel cap
5. Slowly add fuel to the tank. DO NOT overfill. Fill to the red level, visible on the fuel filter.
6. Screw on the fuel cap and wipe away any spilled fuel.

⚠ CAUTION

Use regular unleaded gasoline with a minimum octane rating of 85.

Do not mix oil and gasoline.
Fill the tank to the red level, visible on the fuel filter.
DO NOT fill fuel tank indoors.
DO NOT fill fuel tank when the engine is running or hot.
DO NOT overfill the fuel tank.
DO NOT light cigarettes or smoke when filling the fuel tank.

Grounding

Your generator must be properly connected to an appropriate ground to help prevent electric shock.

⚠ WARNING

Failure to properly ground the generator can result in electric shock.

A ground terminal connected to the frame of the generator has been provided on the power panel. For remote grounding, connect a length of heavy gauge (12 AWG minimum) copper wire between the generator ground terminal and a copper rod driven into the ground. We strongly recommend that you consult with a qualified electrician to ensure compliance with local electrical codes.

Operation

Generator Location

DANGER CARBON MONOXIDE, using a generator indoors **CAN KILL YOU IN MINUTES.**
Generator exhaust contains carbon monoxide (CO). This is a poison gas you cannot see or smell. If you can smell of the generator gas you are breathing CO. But even if you cannot smell the exhaust, you could be breathing CO.

NEVER operate the generator inside any building, including garages, basements, crawlspaces and sheds, enclosure or compartment, including the generator compartment of a recreational vehicle. Deadly levels of carbon monoxide can build up in these areas. Using a fan or opening windows and doors does NOT supply enough fresh air.

Please consult your local authority. In some areas, generators must be registered with the local utility.
Generators used at construction sites may be subject to additional rules and regulations.

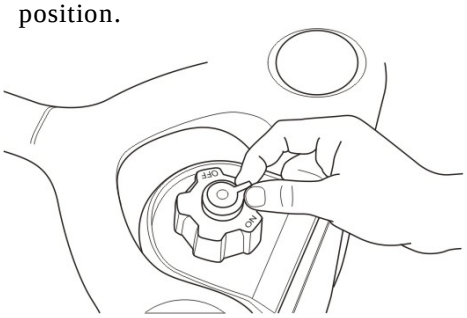
This generator must have at least five feet of clearance from combustible material. Leave at least three feet of clearance on all sides of the generator to allow for adequate cooling, maintenance and servicing.

Place the generator in a well-ventilated area far away from windows door, and vents. DO NOT place the generator near vents or intakes where exhaust fumes could be drawn into occupied or confined spaces. Carefully consider wind and air currents when positioning generator.

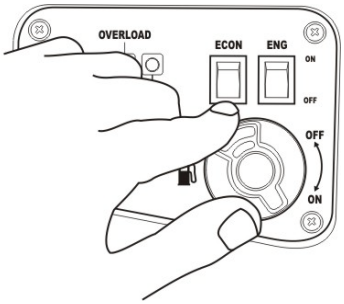
Even when using a generator correctly, carbon monoxide may leak into the home. ALWAYS use a battery-powered or battery-backup CO alarm in the home.
If you start to feel sick, dizzy, or weak after the generator has been running, move to fresh air RIGHT AWAY. See a doctor, you could have carbon monoxide poisoning.

Starting the Engine

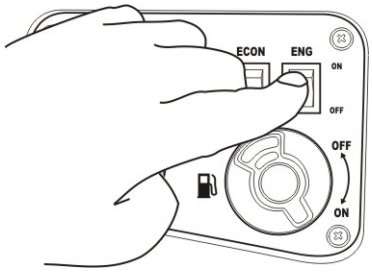
1. Make certain the generator is on a flat, level surface.
2. Disconnect all electrical loads from the generator. Never start or stop the generator with electrical devices plugged in or turned on.
3. Turn the fuel cap vent lever to the “On” position.



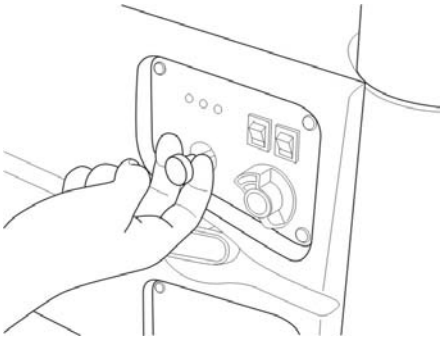
4. Turn the fuel valve to the “On” position.



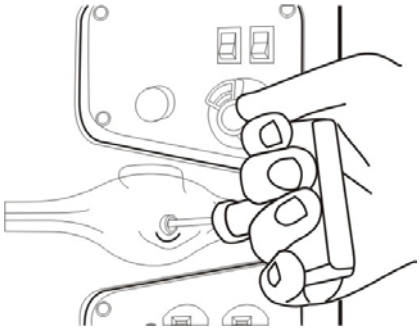
5. Turn the engine switch to the “On” position.



6. Pull the choke lever out when starting the generator.



7. Pull the starter cord slowly until resistance is felt and then pull rapidly



8. As engine warms up, push the choke lever in.

NOTE

If the engine starts but does not run, make certain that the generator is on a flat, level surface. The engine is equipped with a low oil sensor that will prevent the engine from running when the oil level falls below a critical threshold.

Economy Control Switch

The Economy Control switch can be activated in order to minimize fuel consumption and noise while operating the unit during times of **reduced electrical output,** allowing the engine speed to idle during periods of non-use. The engine speed returns to normal when an electrical load is connected. When the economy switch is off, the engine runs at normal speed.

WARNING

For periods of high electrical load or momentary fluctuations, the Economy Control Switch should be turned OFF.

Connecting Electrical Loads

1. Let the engine stabilize and warm up for a few minutes after starting
2. Plug in and turn on the desired 120 Volt AC single phase, 60 Hz electrical loads.

DO NOT connect 3-phase loads to the generator.
DO NOT connect 50 Hz loads to the generator.
DO NOT overload the generator.

NOTE

Connecting a generator to your electric utility company's power lines or to another power source may be against the law. In addition this action, if done incorrectly, could damage your generator and appliances and could cause serious injury or even death to you or a utility worker who may be working on nearby power lines. If you plan to run a portable electric generator during an outage, please notify your electric utility company immediately and remember to plug your appliances directly into the generator. Do not plug the generator into any electric outlet in your home. Doing so could create a connection to the utility company power lines. You are responsible for ensuring that your generator's electricity does not feed back into the electric utility power lines.

If the generator will be connected to a building electrical system, consult your local utility company or a qualified electrician. Connections must isolate generator power from utility power and must comply with all applicable laws and codes.

Stopping the Engine

1. Turn off and unplug all electrical loads. Never start or stop the generator with electrical devices plugged in or turned on.
2. Let the generator run at no-load for several minutes to stabilize internal temperatures of the engine and generator.
3. Turn the engine switch/fuel valve to the "Off" position.
4. Allow the generator to cool down completely to room temperature
5. Turn the fuel cap lever vent to the "Off" position after the generator has cooled down completely.

Do Not Overload Generator Capacity

Follow these simple steps to calculate the running and starting watts necessary for your purposes.

1. Select the electrical devices you plan on running at the same time.
2. Total the running watts of these items. This is the amount of power you need to keep your items running.
3. Identify the highest starting wattage of all devices identified in step 1. Add this number to the number calculated in step 2. Starting wattage is the extra burst of power needed to start some electric driven equipment. Following the steps listed under "Power Management" will guarantee that only one device will be starting at a time.

Power Management

Use the following formula to convert voltage and amperage to watts:

Volts x Amps = Watts

To prolong the life of your generator and attached devices, follow these steps to add electrical load:

1. Start the generator with no electrical load attached.
2. Allow the engine to run for several minutes to stabilize.
3. Plug in and turn on the first item. It is best to attach the item with the largest load first.
4. Allow the engine to stabilize.
5. Plug in and turn on the next item.
6. Allow the engine to stabilize.
7. Repeat steps 5-6 for each additional item

Overload Operation

The overload indicator light will turn on when the load exceeds 1750W. If the load exceeds 1900W, the light will blink and cut power to the receptacles. To recover the power, you must shut off the engine, wait 5 seconds, and restart the generator.

Parallel Operation

Two Champion model 73531i generators can be operated in parallel to increase the total available electrical power to 3000 watts. A Champion model 73500i parallel kit (optional equipment) is required for parallel operation. For kit availability, call Customer Service at 1-877-338-0999 or visit www.championpowerequipment.com.

Detailed instructions for parallel kit installation and operation of the connected generators are provided in the parallel kit Owner's Manual and Operating Instructions. Please note the following important requirements:

1. The two generators may be stacked one on top of the other by aligning the lower pads and upper pockets at each corner of the generators.
2. Disconnect or turn off all electrical loads from both generators.
3. The ECON switch must be in the same position on both generators.
4. Before starting the engines, connect the AC power outlet cables, the control cables and the ground cables to both generators. Follow the instructions supplied with the parallel kit.
5. Do not disconnect any cables after the engines have been started.
6. Start both engines and observe the green output indicator light on both generator panels.
7. Connect and turn on the electrical devices.
8. The total electrical load must not exceed 3000 watts.
9. Follow the instructions on the previous page for turning off the generators.

NOTE

Never exceed the generator capacity when adding loads.

Wattage Reference Chart

Use the chart to determine approximate wattage requirements for your equipment.

NOTE

Starting watts can exceed three times the running watts. The values in the following table are approximate. Refer to your tool or appliance for actual wattage consumption.

Item	Typical Running Watts	Typical Starting Watts
Essentials		
Light Bulb 100W	100	
Refrigerator/Freezer	1200	2400
Freezer	500	500
Sump Pump	600	1800
Well Pump 1 HP	2000	4000
Water Heater	4000	
Security System	180	
AM/FM Radio	300	
Garage Door Opener 1/2 HP	500	600
Battery Charger 12V DC	110	
Heating/Cooling		
Air Conditioner 12000 BTU	1700	2500
Fan	300	600
Furnace Fan 1/3 HP	1200	2000
Home Appliances		
Microwave 1000W	1000	
Electric Range - One Element	1500	
Electric Skillet	1250	
Coffee Maker	1500	
Clothes Washer	1200	
Entertainment		
CD/DVD Player	100	
VCR	100	
Stereo Receiver	450	
Television 27"	500	
PC with 15" Monitor	800	
Job Site		
Belt Sander 3"	1000	1500
Bench Grinder 6"	700	1500
Circular Saw	1500	1500
Compressor 1 1/2 HP	2500	2500
Edge Trimmer	500	500
Hand Drill 1/2"	1000	1000
Lawn Mower	1200	1800
Paint Sprayer	600	1200
Table Saw	2000	2000

Maintenance

The owner/operator is responsible for all periodic maintenance.

NOTICE

Maintenance, replacement, or repair of emission control devices and systems may be performed by any non-road engine repair establishment or individual.

WARNING

Never operate a damaged or defective generator.

WARNING

Tampering with the factory set throttle control will void your warranty.

WARNING

Improper maintenance will void your warranty.

Complete all scheduled maintenance in a timely manner. Correct any issue before operating the generator.

NOTE

For service or parts assistance, contact our help line at 1-877-338-0999.

Engine Maintenance

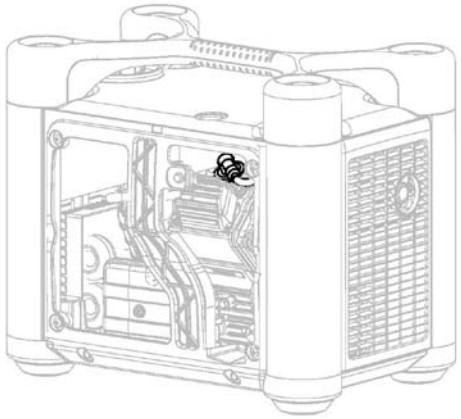
To prevent accidental starting, remove and ground spark plug wire before performing any service.

Oil

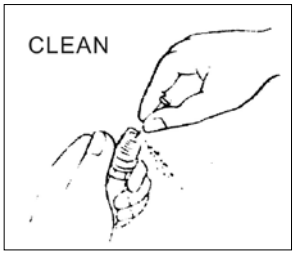
Change oil when the engine is warm. Refer to the oil specification to select the proper grade of oil for your operating environment.

1. Loosen the cover screw and remove the maintenance cover.
2. Remove the oil filler cap.
3. Tilt the generator on its side and allow the oil to drain completely.
4. Add 0.42 qt (0.4 L) of oil and replace oil fill cap/dipstick.
5. Reinstall the maintenance cover and tighten the cover screw.
6. Dispose of used oil at an approved waste management facility.

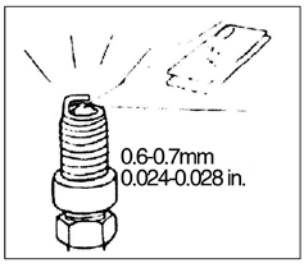
Spark Plugs



1. Remove the maintenance cover.
2. Remove the spark plug cable from the spark plug.
3. Use the spark plug tool that shipped with your generator to remove the plug. Remove the spark plug access cap and insert the spark plug tool through this hole.
4. Remove the spark plug.
5. Inspect the electrode on the plug. It must be clean and not worn to produce the spark required for ignition.

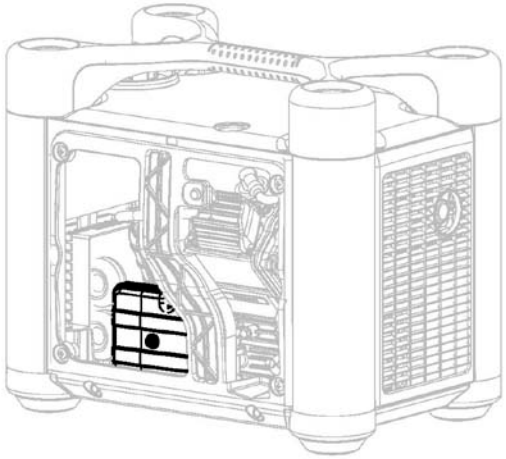


6. Make certain the spark plug gap is 0.6 - 0.7 mm (0.024 - 0.028 in.).



7. Refer to the spark plug recommendation chart when replacing the plug.
8. Carefully thread the plug into the engine.
9. Use the spark plug tool to firmly install the plug.
10. Attach the spark plug wire to the plug.
11. Reinstall the spark plug access cap, and maintenance cover.

Air Filter



1. Remove the maintenance cover.
2. Locate the air filter plastic cover. Remove the screw using a Phillips head screwdriver.
3. Remove the foam element.
4. Wash in liquid detergent and water. Squeeze thoroughly dry in a clean cloth.
5. Saturate in clean engine oil.
6. Squeeze in a clean, absorbent cloth to remove all excess oil.
7. Place the filter in the assembly.
8. Reattach the air filter cover.
9. Reinstall the maintenance cover and tighten the cover screw securely.

Cleaning

⚠ CAUTION

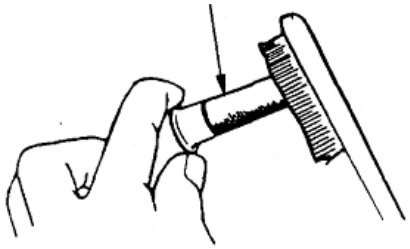
DO NOT spray water into the generator case

Water can contaminate the fuel system.

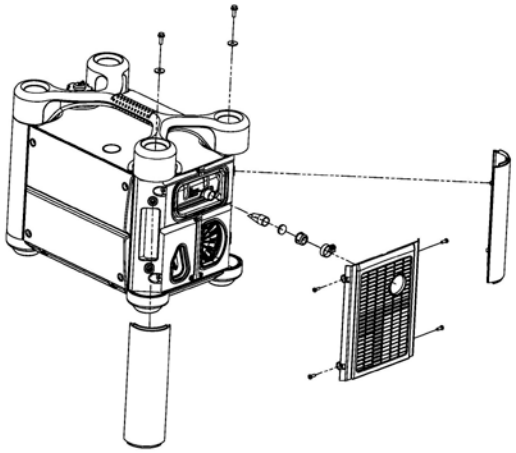
Use a damp cloth to clean exterior surfaces of the generator.
Use a soft bristle brush to remove dirt and oil.
Use an air compressor (25 PSI) to clear dirt and debris from the generator.

Spark Arrester Cleaning

1. Loosen M6x22 bolts to remove two pillars.
2. Remove 4 screws to remove the muffler cover assembly.
3. Loosen the spark arrester clamp, and remove the spark arrester.
4. Carefully remove the carbon deposits from the spark arrester screen with a wire brush.



5. Replace the spark arrester if it is damaged.
6. Reattach spark arrester, cover assembly, and pillars.



Adjustments

The air-fuel mixture is not adjustable. Tampering with the throttle control can damage your generator and your electrical devices and will void your warranty. CPE recommends that you contact our service line at 1-877-338-0999 for all other service and/or adjustment needs.

Maintenance Schedule

Follow the service intervals indicated in the following schedule.
Service your generator more frequently when operating in adverse conditions. Contact our help line at 1-877-338-0999 to locate the nearest Champion Power Equipment certified service dealer for your generator or engine maintenance needs.

Every 8 hours or daily
Check oil level
Clean around air intake and muffler
First 10 Hours
Change oil
Every 50 hours or every season
Clean air filter
Change oil if operating under heavy load or in hot environments
Every 100 hours or every season
Change oil
Clean/Adjust spark plug
Check/Adjust valve clearance *
Clean spark arrester
Clean fuel tank and filter *
Every 3 years
Replace fuel line

* To be performed by knowledgeable, experienced owners or Champion Power Equipment certified service dealers

Generator Maintenance

Make certain that the generator is kept clean and stored properly. Only operate the unit on a flat, level surface in a clean, dry operating environment. DO NOT expose the unit to extreme conditions, excessive dust, dirt, moisture or corrosive vapors.

Storage

The generator should be started at least once every 14 days and allowed to run for at least 20 minutes. For longer term storage, please follow these guidelines.

1. Allow the engine to cool completely before storage.
2. Clean the generator according to the instructions in the Maintenance section.
3. Remove the maintenance cover. Drain all fuel completely from the fuel line and carburetor to prevent varnish build up.
4. Turn the engine switch/fuel valve ON, loosen the carburetor drain screw, and drain the gasoline into a suitable container.
5. Remove the spark plug cap, then pull the recoil grip 3 times to drain the gasoline from the fuel pump.
6. Change the engine oil.
7. Remove the spark plug and pour about a tablespoon of oil into the cylinder. Crank the engine slowly to distribute the oil and lubricate the cylinder.
8. Reattach the spark plug.

Specifications

Engine Specifications

Engine	80 cc OHV CPE

Generator Specifications

Rated Wattage	1600 Watts
Starting Wattage	2000Watts*
AC Load	120V
Phase	Single
Frequency	60 Hz
Fuel Capacity	1.0 gallon (3.8 L)
Weight	48.06 lbs. (21.8 kg)
Height	16.3 inches (41.5 cm)
Width	13.2 inches (33.5 cm)
Length	19.3 inches (49 cm)

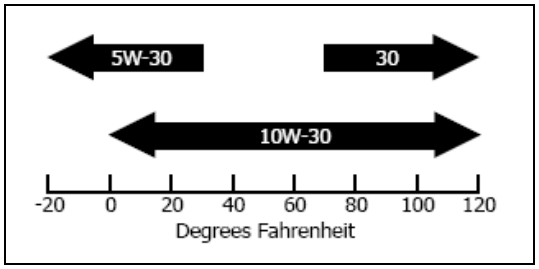
*Short durations for starting loads of 5 seconds or less

Fuel

Fuel capacity is 1.0 gallon (3.8 L). Use regular unleaded gasoline with a minimum octane rating of 85.

Oil

Oil capacity is 0.42 qt (0.4 L).



Spark Plugs

Your generator comes equipped with a 1/2" long reach plug (12.7mm)

Intermittent use (less than 1 hour/month) or colder temperatures (below 60°F)
NGK BR6HS or equivalent

Moderate use (less than 3 hours/month) or seasonal temperatures (50-80°F)
NGK BR7HS or equivalent

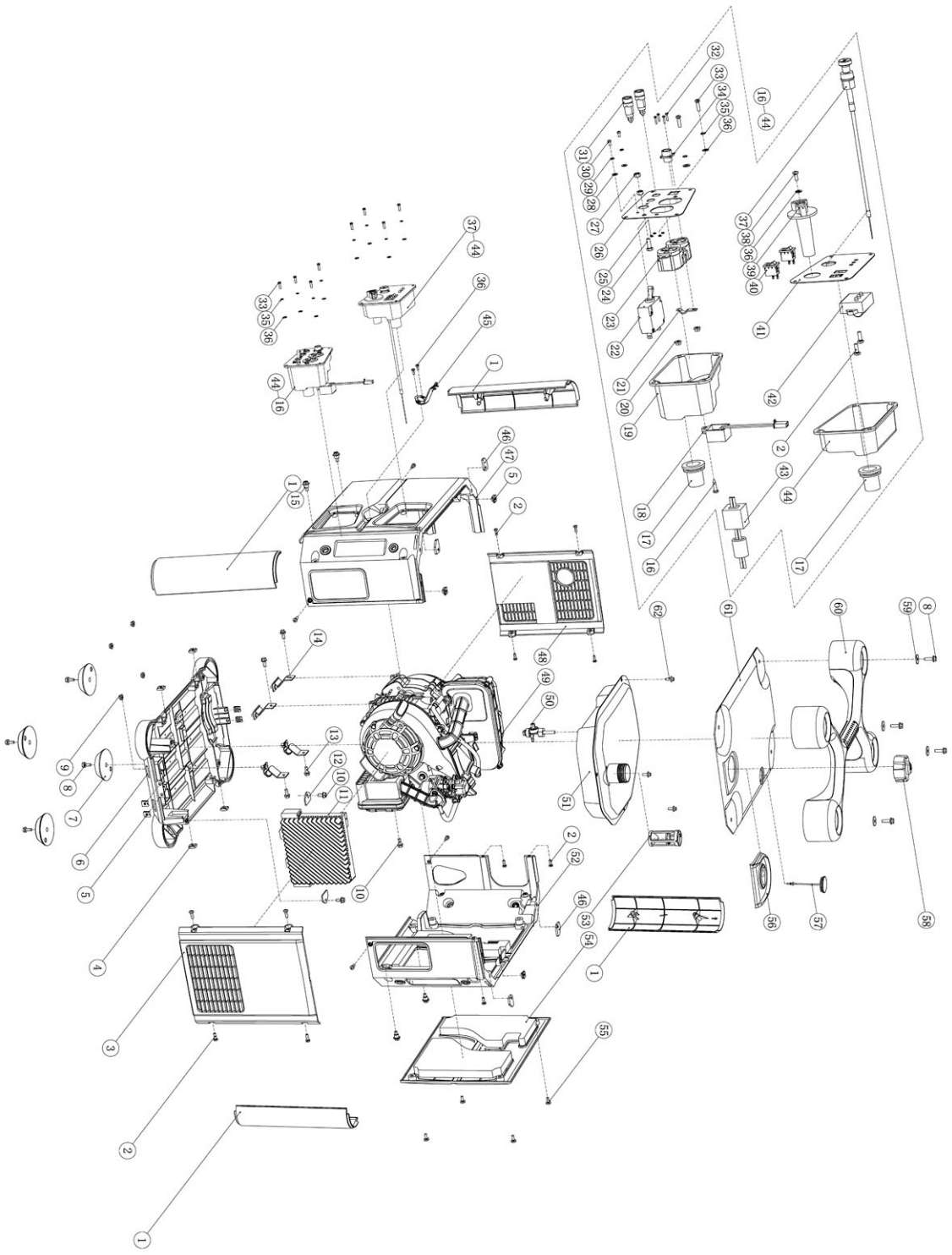
Extreme use (continuous) or hot climates (80-100°F)
NGK BR8HS or equivalent

Make certain the spark plug gap is 0.6 - 0.7mm (0.024 - 0.028 in.).

Valve Clearance

Intake 0.1mm (0.004 in.)
Exhaust 0.1mm (0.004 in.)

Parts Diagram

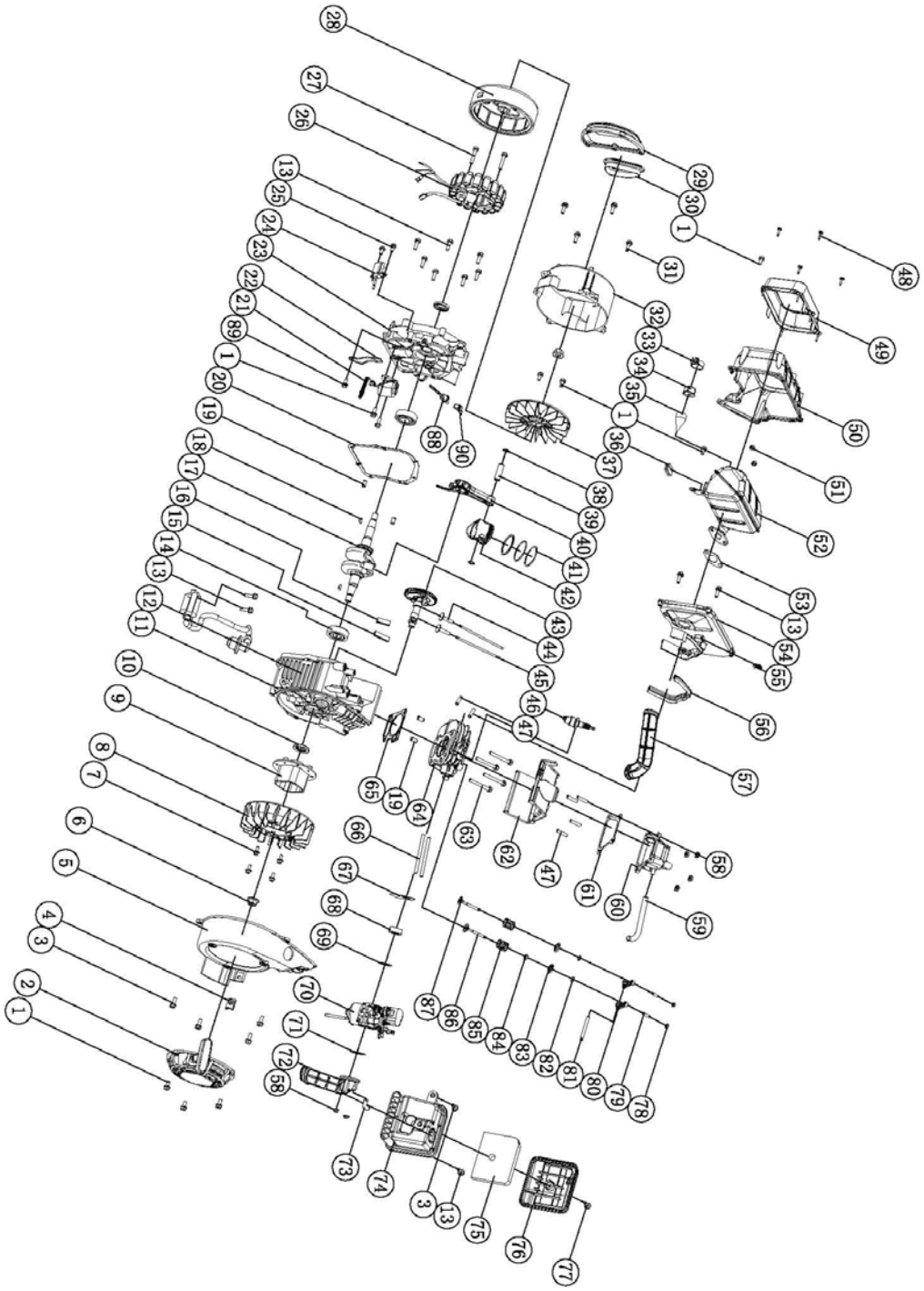


Parts List

No.	Part Number	Description	Qty
1	0902.200800.00	CROSS BANDING	4
2	GB818 M5X14 03	SCREW M5×14	17
3	0902.200300.00	RIGHT SIDE COVER ASSEMBLY	1
4	02.006002.00	NUT M6	4
5	02.005002.00	NUT M5	7
6	0902.200600.00	BASE ASSEMBLY	1
7	0902.200604.00	BASE MOUNTING4	4
8	GB5789 M6X22 03	BOLT M6X22	8
9	GB6177.1 M6 03	NUT M6	4
10	GB5789 M6X12	BOLT M6X12	3
11	0902.221000.01	CONTROL UNIT	1
12	0902.220003.00	CLIP	2
13	GB5789 M6X15	BOLT M6X15	4
14	0902.200605.00	STOPPER	4
15	08.006001.00	BOLT M6	4
16	GB845 ST4.2×20	TAPPING SCREW	1
17	ST02FD-05212001	RUBBER PLUG	2
18	IV02.P-00000000	PARALLEL POWER UNIT	1
19	0902.212001.00	OUTPUT PANEL BOX	1
20	GB6177.1 M4 03	BOLT M4	2
21	0902.210012.00	CLIP	1
22	ST02FD-05302003-13.3C	AC BREAKER 13.3A (CSA)	1
23	ST02FD-05502023-CSA	RECEPTACLE 5-20R	1
24	GB5783 M5X14 03	BOLT M5X14	1
25	GB6170 M2 03	BOLT M2	4
26	0902.212100.A4	OUTPUT PANEL	1
27	GB41 M5 03	NUT M5	2
28	GB848 3 03	FLAT WASHERΦ3	2
29	GB859 3 03	SPRING WASHERΦ3	2
30	GB823 M3×6 03	SCREW M3×6	2
31	0902.210001.00	PARALLEL TERMINAL	2
32	GB818 M2×10 03	SCREW M2×10	4
33	GB818 M4×14 03	SCREW M4×14	10
34	22.012001.02	COMMUNICATION RECEPTACLE	1
35	GB93 4 03	SPRING WASHERΦ4	10
36	GB97.1 4 03	FLAT WASHERΦ4	11
37	0902.130200.00	CHOCK CABLE ASSEMBLY	1
38	GB818 M4×12 03	SCREW M4×12	3
39	0902.070001.00	FUEL COCK KNOB	1
40	ST01FD-05701001	ENGINE SWITCH	2
41	0902.211100.00	CONTROL PANEL	1
42	0902.126000.00	IGNITION ASSEMBLY	1
43	0902.210200.00	MAGNET RING ASSEMBLY	1
44	0902.211001.00	CONTROL PANEL BOX	1
45	0902.061200.00	GUIDE.ROPE HANDLE	1
46	02.006003.00	NUT M6	4
47	0902.200100.00	FRONT COVER ASSEMBLY	1
48	0902.200200.00	LEFT SIDE COVER ASSEMBLY	1
49	149.000000.A3	ENGINE	1
50	0902.070400.00	FUEL COCK COMP.	1
51	0902.071000.00	FUEL TANK ASSEMBLY	1

No.	Part Number	Description	Qty
52	0902.200401.00	COVER,REAR 1	1
53	0902.070300.00	FUEL FILTER COMP.	1
54	0902.200402.00	MAINTENANCE COVER	1
55	GB818 M6×14 03	SCREW M6×14	4
56	0902.200502.00	FUEL GUIDE PLATE	1
57	0902.200503.00	SEAL,PLUG CAP	1
58	0902.070100.00	FUEL TANK CAP COMP.	1
59	GB5287 6 03	FLAT WASHERΦ6	4
60	0902.200700.00	HOLDER ASSEMBLY	1
61	0902.200501.00	COVER,TOP	1
62	ST02FD-05010703	BOLT M5×13	3

Engine Parts Diagram

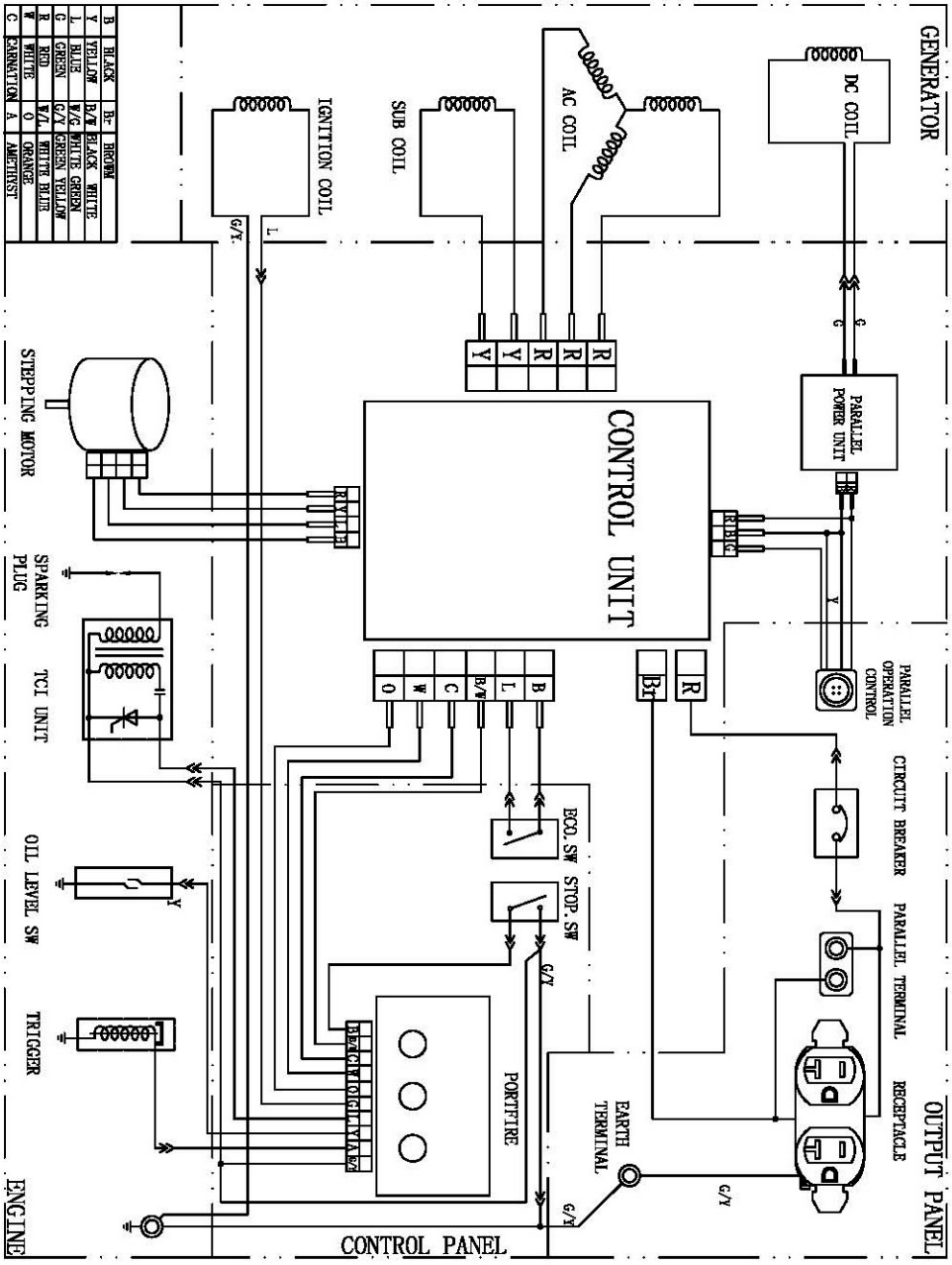


Engine Parts List

#	Part Number	Description	Qty
1	GB5789 M6X12	BOLT M6X12	9
2	0902.061000.00	STARTER ASSY.	1
3	GB5789 M6X15	BOLT M6X15	5
4	02.006001.00	NUT	1
5	0902.080100.00	FAN COVER COMP.	1
6	02.012000.10	NUT M12X1.25	2
7	GB16674 M5X12	BOLT M5X12	4
8	0902.080001.00	COOLING FAN	1
9	0902.060001.00	STARTING HUB	1
10	12.020000.01	OIL SEAL 20X35X5	2
11	0902.030100.00	CRANKCASE COMP	1
12	0902.123000.01	IGNITION ASSY	1
13	GB5789 M6X20	BOLT M6X20	12
14	GB276 6204	BEARING	2
15	0902.030013.01	PROTECTOR COVER SEAL 2	1
16	0902.030013.00	PROTECTOR COVER SEAL 1	1
17	0902.050100.00	CRANK COMP	1
18	16.003001.00	KEY	2
19	139FMD-1001001	DOWEL PIN	4
20	0902.030008.00	CRANKCASE GASKET	1
21	0902.127000.00	OIL SENSOR	1
22	0902.030010.00	OIL SENSOR PLATE	1
23	0902.030007.00	CRANKCASE COVER	1
24	0902.122000.00	TRIGGER ASSY	1
25	GB16674 M6X12	BOLT M6X12	2
26	0902.191100.01	STATOR COMP.	1
27	GB5789 M6X35	BOLT M6X35	2
28	0902.191200.00	ROTOR COMP.	1
29	0902.190006.01	RUBBER.END COVER 2	1
30	0902.190006.00	RUBBER.END COVER 1	1
31	GB5789 M6X22 03	BOLT M6X22	4
32	0902.190002.00	END COVER	1
33	06.025001.20	SPARK ARRESTER CLAMP	1
34	0902.101501.00	SPARK ARRESTER BASE	1
35	0902.101300.00	SPARK ARRESTER	1
36	0902.081002.00	RUBBER SEAL	1
37	0902.190001.00	MOTOR FAN	1
38	09.011001.00	PISTON PIN CLIP	2
39	0902.050003.00	PISTON PIN	1
40	0902.050200.00	CONNECT ROD ASSY.	1
41	0902.050300.00	PISTON RING SET	1
42	0902.050005.00	PISTON	1
43	0902.040100.00	CAMSHAFT COMP.	1
44	0902.040013.00	VALVE TAPPET	2
45	0902.040005.00	PUSH ROD	2
46	E6RTC	SPARK PLUG	1
47	01.606002.00	EXHAUST BOLT	6
48	GB845 ST4.8X17	TAPPING SCREW ST4.8X17	4
49	0902.081300.00	MUFF. PROTECTOR ASSY. RH	1
50	0902.081200.00	MUFF. PROTECTOR ASSY.MIDDLE	1

#	Part Number	Description	Qty
51	GB6175 M6 03	NUT M6	2
52	0902.101100.00	MUFFLER COMP	1
53	0902.100001.00	EXHAUST GASKET	1
54	0902.081100.00	PROTECTOR MUFF. SIDE	1
55	0902.081003.00	SETTING FLASH BOARD	1
56	0902.081001.00	.MUFF. PROTECTOR SEAL	1
57	0902.080003.00	DUCT	1
58	GB6177.1 M6 03	NUT M6	6
59	0902.020001.00	BREATHER PIPE	1
60	0902.021000.00	CYL. HEAD COVER ASSY	1
61	0902.020002.00	CYLINDER COVER GASKET	1
62	0902.080200.00	AIR SHROUD,CYLINDER COMP.	1
63	GB5789 M6X50	BOLT M6X50	4
64	0902.010100.00	CYLINDER HEAD COMP.	1
65	0902.030009.00	GASKET,CYLINDER	1
66	01.606001.00	CARBURETOR BOLT	2
67	0902.130002.00	GSKT,INSULATOR	1
68	0902.130001.00	INSULATOR.CARB.	1
69	0902.130003.00	GSKT,CARB	1
70	0902.131000.00	CARBURETOR. ASSY.	1
71	0902.130004.00	GSKT,AIR CLEANER	1
72	0902.090004.00	PIPE,AIR CLEANER	1
73	0902.090003.00	JT.,BREATHER PIPE	1
74	0902.091100.00	CASE,AIR CLEANER COMP.	1
75	0902.091003.00	AIR CLEANER ELEMENT	1
76	0902.091200.00	CASE,AIR CLEANER	1
77	08.006020.00	BOLT M6X20	1
78	02.005001.00	NUT,VALVE ADJUSTING	2
79	0902.040012.00	SCREW,VALVE ADJUSTING	2
80	0902.040009.00	ARM,VALVE ROCKER	2
81	0902.040016.00	SHAFT,SCREW ROCKER	1
82	CT166FD-1040003	LOCK CLIP. VALVE	2
83	CT166FD-1040004	RET.,VALVE SPRING	2
84	0902.040017.00	OIL SEAL,VALVE	1
85	CT166FD-1040005	SPRING,VALVE	2
86	0902.040002.00	VALVE,INTAKE	1
87	0902.040006.00	VALVE,EXHAUST	1
88	0902.030001.00	OIL FILLER CAP ASSY	1
89	GB5789 M6X8	BOLT M6X8	1
90	0902.030035.00	OIL NOZZLE	1

Wiring Diagram



Troubleshooting

Problem	Cause	Solution
Generator will not start	No fuel	Add fuel
	Faulty spark plug	Replace spark plug
	Unit loaded during start up	Remove load from unit
Generator will not start; Generator starts but runs roughly	Low oil level	Fill crankcase to the proper level Place generator on a flat, level surface
	Choke in the wrong position.	Adjust choke.
	Spark plug wire loose	Attach wire to spark plug
Generator shuts down during operation	Out of fuel	Fill fuel tank
	Low oil level	Fill crankcase to the proper level. Place generator on a flat, level surface
Generator cannot supply enough power or overheating	Generator is overloaded	Review load and adjust. See “Power Management”
	Insufficient ventilation	Check for air restriction. Move to a well ventilated area
No AC output	Cable not properly connected	Check all connections
	Connected device is defective	Replace defective device
	Circuit breaker is open	Unplug electrical loads. Turn off generator. Restart.
	Faulty inverter assembly	Replace
	Loose wiring	Inspect and tighten wiring connections
	Other	Contact the help line.
	Engine governor defective	Contact the help line
Repeated circuit breaker tripping	Faulty cords or device	Check for damaged, bare or frayed wires. Replace defective device

Warranty

CHAMPION POWER EQUIPMENT
2 YEAR LIMITED WARRANTY
Effective September 1, 2006. Replaces all undated warranties and all warranties dated before September 1, 2006.

Warranty Qualifications

Champion Power Equipment (CPE) will register this warranty upon receipt of your Warranty Registration Card and a copy of your sales receipt from one of CPE's retail locations as proof of purchase.
Please submit your warranty registration and your proof of purchase within ten (10) days of the date of purchase.

Repair/Replacement Warranty

CPE warrants to the original purchaser that the mechanical and electrical components will be free of defects in material and workmanship for a period of (2) years from the original date of purchase (90 days for commercial & industrial use). Transportation charges on product submitted for repair or replacement under this warranty are the sole responsibility of the purchaser. This warranty only applies to the original purchaser and is not transferable.

Do not return the unit to the place of purchase

Contact CPE's Technical Service and CPE will troubleshoot any issue via phone or e-mail. If the problem is not corrected by this method, CPE will, at its option, authorize evaluation, repair or replacement of the defective part or component at a CPE Service Center. CPE will provide you with a case number for warranty service. Please keep it for future reference. Repairs or replacements without prior authorization, or at an unauthorized repair facility, will not be covered by this warranty.

Warranty Exclusions

This warranty does not cover the following repairs and equipment:

Normal Wear

Generators need periodic parts and service to perform well. This warranty does not cover repair when normal use has exhausted the life of a part or the equipment as a whole.

Installation, Use and Maintenance

This warranty will not apply to parts and/or labor if this generator is deemed to have been misused, neglected, involved in an accident, abused, loaded beyond the generator's limits, modified, installed improperly or connected incorrectly to any electrical component. Normal maintenance such as spark plugs, air filters, adjustments, fuel system cleaning and obstruction due to buildup is not covered by this warranty.

Other Exclusions

This warranty excludes:
Cosmetic defects such as paint, decals, etc.
Wear items such as filter elements, o-rings, etc.
Accessory parts such as starting batteries, and storage covers.
Failures to due acts of God and other force majeure events beyond the manufacturer's control.
Problems cause by parts that are not original Champion Power Equipment parts.
This warranty does not apply to generators used for prime power in place of a utility.

Limits of Implied Warranty and Consequential Damage

Champion Power Equipment disclaims any obligation to cover any loss of time, use of this product, freight, or any incidental or consequential claim by anyone from using this generator. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE

A unit provided as an exchange will be subject to the warranty of the original unit. The length of the warranty governing the exchanged unit will remain calculated by reference to the purchase date of the original unit.

This warranty gives you certain legal rights which may change from state to state. Your state may also have other rights you may be entitled to that are not listed within this warranty.

Contact Information

Address

Champion Power Equipment, Inc.
Customer Service
10006 Santa Fe Springs Rd.
Santa Fe Springs, CA 90670

Customer Service

Mon – Fri 8:30 AM – 5:00 PM (PST/PDT)
Toll Free: 1-877-338-0999
Fax no.: 1-562-236-9429

Technical Service

Mon – Fri 8:30 AM – 5:00 PM (PST/PDT)
Toll Free: 1-877-338-0999
tech@championpowerequipment.com

Champion Power Equipment, Inc (CPE),
The California Air Resources Board (CARB) and the United States Environment Protection Agency (U.S. EPA.)
Emission Control System Warranty

Your Champion Power Equipment (CPE) engine complies with both the U.S. EPA and state of California Air Resources Board (CARB) emission regulations.

YOUR WARRANTY RIGHTS AND OBLIGATIONS:

The California Air Resources Board, US EPA AND CPE are pleased to explain the Federal and California Emission Control Systems Warranty on your 2010 small off-road engine. In California, new, small off-road engines must be designed, built and equipped to meet the State's stringent anti smog standards. In the other states, new engines must be designed, built and equipped, at the time of sale, to meet U.S. EPA regulations for small non-road engines. CPE must warrant the emission control system on your small off-road engine for the period of time listed below, provided there has been no abuse, neglect, unapproved modification, or improper maintenance of your small off-road engine.

Your emission control system may include parts such as the carburetor, fuel-injection system, the ignition system, catalytic converter and fuel lines. Also included may be hoses, belts, connectors and other emission related assemblies. Where a warrantable condition exits, CPE will repair your small off-road engine at no cost to you including diagnosis, parts and labor.

MANUFACTURER'S EMISSION CONTROL SYSTEM WARRANTY COVERAGE:

This emission control system is warranted for two years, subject to provisions set forth below. If, during the warranty period, emission related part on your engine is defective in materials or workmanship, the part will be repaired or replaced by CPE.

OWNER WARRANTY RESPONSIBILITIES:

As the small off-road engine owner, you are responsible for the performance of the required maintenance listed in your Owner's Manual. CPE recommends that you retain all your receipts covering maintenance on your small off-road engine, but CPE cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.

As the small off-road engine owner, you should however be aware that CPE may deny you warranty coverage if your small, off-road engine or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

You are responsible for presenting your small off-road engine to an Authorized CPE service outlet,CPE dealer or CPE, Santa Fe Springs, Ca. as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

If you have any questions regarding your warranty rights and responsibilities, you should contact:

Champion Power Equipment, Inc.
Customer Service
10006 Santa Fe Springs Road
Santa Fe Springs, CA 90670
Tel: 1-877-338-0999

The emission warranty is a defects warranty. Defects are judged on normal engine performance. The warranty is not related to an in-use emission test.

EMISSION CONTROL SYSTEM WARRANTY

The following are specific provisions relative to your Emission Control System Warranty Coverage.

Emission Control System Warranty (ECS Warranty) for 1995 and later model year California small off-road engines (for other states, 1997 and later model year engines):

1. APPLICABILITY: This warranty shall apply to 1995 and later model year California small off-road engines (for other states, 1997 and later model year engines). The ECS Warranty Period shall begin on the date the new engine or equipment is delivered to its original, end-use purchaser, and shall continue for 24 consecutive months thereafter.

2. GENERAL EMISSIONS WARRANTY COVERAGE
CPE warrants to the original, end-use purchaser of the new engine or equipment and to each subsequent purchaser that each of its small off-road engines is:
a. Designed, built and equipped so as to conform with all applicable regulations adopted by the Air Resources Board pursuant to its authority in Chapters 1 and 2, Part 5, Division 26 of the Health and Safety Code, and
b. Free from defects in materials and workmanship that cause the failure of a warranted part to be identical in all material respects to the part as described in the engine manufacturer's application for certification for a period of two years.

3. THE WARRANTY ON EMISSION-RELATED PARTS WILL BE INTERPRETED AS FOLLOWS:

a. Any warranted part that is not scheduled for replacement as required maintenance in the Owners Manual shall be warranted for the ECS Warranty Period. If any such part fails during the ECS Warranty Period, it shall be repaired or replaced by CPE according to Subsection "d" below. Any such part repaired or replaced under the ECS Warranty shall be warranted for any remainder of the ECS Warranty Period.

b. Any warranted, emissions-related part which is scheduled only for regular inspection as specified in the Owners Manual shall be warranted for the ECS Warranty Period. A statement in such written instructions to the effect of "repair or replace as necessary", shall not reduce the ECS Warranty Period. Any such part repaired or replaced under the ECS Warranty shall be warranted for the remainder of the ECS Warranty Period.

c. Any warranted, emissions-related part which is scheduled for replacement as required maintenance in the Owner's Manual shall be warranted for the period of time prior to the first scheduled replacement point for that part. If the part fails prior to the first scheduled replacement, the part shall be repaired or replaced by CPE according to Subsection "d" below. Any such emissions-related part repaired or replaced under the ECS Warranty, shall be warranted for the remainder of the ECS Warranty Period prior to the first scheduled replacement point for such emissions-related part.

d. Repair or replacement of any warranted, emissions-related part under this ECS Warranty shall be performed at no charge to the owner at a CPE Authorized Service Outlet.

e. The owner shall not be charged for diagnostic labor which leads to the determination that a part covered by the ECS Warranty is in fact defective, provided that such diagnostic work is performed at a CPE Authorized Service Outlet.

f. CPE shall be liable for damages to other original engine components or approved modifications proximately caused by a failure under warranty of an emission-related part covered by the ECS Warranty.

g. Throughout the ECS Warranty Period, CPE shall maintain a supply of warranted emission-related parts sufficient to meet the expected demand for such emission-related parts.

h. Any CPE Authorized and approved emission-related replacement part may be used in the performance of any ECS Warranty maintenance or repair and will be provided without charge to the owner. Such use shall not reduce CPE's warranty obligation.

i. Unapproved add-on or modified parts may not be used to modify or repair a CPE

engine. Such use voids this ECS Warranty and shall be sufficient grounds for disallowing an ECS Warranty claim. CPE shall not be liable hereunder for failures of any warranted parts of a CPE engine caused by the use of such an unapproved add-on or modified part.

EMISSION-RELATED PARTS INCLUDE THE FOLLOWING: (using those portions of the list applicable to the engine)

Systems covered by this warranty	Parts Description
Fuel Metering System	Fuel regulator, Carburetor and internal parts
Air Induction System	Air cleaner, Intake manifold
Ignition System	Spark plug and parts, Magneto ignition system
Exhaust System	Exhaust manifold, catalytic converter
Miscellaneous Parts	Tubing, Fittings, Seals, Gaskets, and Clamps associated with these listed systems
Evaporative Emissions	Fuel Tank, Fuel Cap, Fuel Line, Fuel Line Fittings, Clamps, Pressure Relief Valves, Control Valves, Control Solenoids, Electronic Controls, Vacuum Control Diaphragms, Control Cables, Control Linkages, Purge Valves, Vapor Hoses, Liquid/Vapor Separator, Carbon Canister, Canister Mounting Brackets, Carburetor Purge Port Connector

TO OBTAIN WARRANTY SERVICE:

You must take your CPE engine or the product on which it is installed, along with your warranty registration card or other proof of original purchase date, at your expense, to any Champion Power Equipment dealer who is authorized by Champion Power Equipment, Inc. to sell and service that CPE product during his normal business hours. Claims for repair or adjustment found to be caused solely by defects in material or workmanship will not be denied because the engine was not properly maintained and used.

If you have any questions regarding your warranty rights and responsibilities, or to obtain warranty service, please write or call the Customer service of Champion Power Equipment, Inc.

Champion Power Equipment, Inc.
10006 Santa Fe Springs Road
Santa Fe Springs, CA 90670
1-877-338-0999
Attn: Customer Service